

Precalc Warm Up # 7-4

1. Find the values of the other five trig functions.

$$\tan x = \frac{5}{12}$$

$$\sec x < 0$$

$$\sin x =$$

$$\cos x =$$

$$\sec x =$$

$$\csc x =$$

$$\cot x =$$

2. Sketch 2 cycles of: $y = 2 \tan(2x + \frac{\pi}{2})$

In Exercises 1–4, sketch the given angle in standard position, and list one positive and one negative coterminal angle.

1. $\frac{11\pi}{4}$

3. -110°

In Exercises 5–8, convert the angle measurement to decimal form. Round each answer to two decimal places.

7. $5^\circ 22' 53''$

In Exercises 9–12, convert the angle measurement to $D^{\circ} M' S''$ form.

11. -85.15°

In Exercises 13–16, convert the angle measurement from radians to degrees. Round each answer to two decimal places.

15. -3.5 $\left(\frac{180}{\pi}\right) \approx$

In Exercises 17–20, convert the angle measurement from degrees to radians. Round each answer to four decimal places.

19. $-33^{\circ} 45'$

In Exercises 21–24, find the reference angle for the given angle.

23. 252°

In Exercises 25–28, find the six trigonometric functions of the angle θ (in standard position) whose terminal side passes through the given point.

25. $(-7, 2)$

27. $(-4, -6)$

In Exercises 29–32, use a right triangle to find the remaining five trigonometric functions of θ .

31. $\sin \theta = \frac{3}{8}, \cos \theta < 0$

In Exercises 33–36, evaluate the given trigonometric functions without the use of a calculator.

33. $\sin \frac{5\pi}{3}$

35. $\cos 495^\circ$

In Exercises 37–40, use a calculator to evaluate the given trigonometric functions. Round each answer to two decimal places.

39. $\sec \frac{12\pi}{5}$

In Exercises 41–44, find two values of θ in degrees ($0^\circ \leq \theta < 360^\circ$) and in radians ($0 \leq \theta < 2\pi$) without using a calculator.

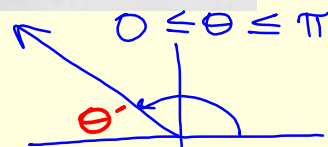
43. $\csc \theta = -2$

In Exercises 45–48, find two values of θ in degrees ($0^\circ \leq \theta < 360^\circ$) and in radians ($0 \leq \theta < 2\pi$) by using a calculator.

47. $\sec \theta = -1.0353$

$$\theta = \sec^{-1}(-1.0353)$$

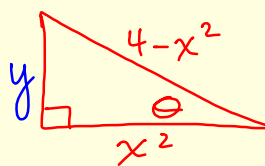
$$\theta = \cos^{-1}\left(-\frac{1}{1.0353}\right)$$



Use θ' to find another angle.
Quad III where $\cos -$

In Exercises 49–52, use a right triangle to write an algebraic expression for the given expression.

51. $\sin\left(\arccos \frac{x^2}{4-x^2}\right)$



Now pyth.
theorem
to find
 y & $\sin \theta$

In Exercises 53–70, sketch the graph of the given function.

55. $f(x) = -\frac{1}{4} \cos \frac{\pi x}{4}$

59. $h(t) = \csc\left(3t - \frac{\pi}{2}\right)$

just 3, not .3

71. An observer 2.5 miles from the launch pad of a space shuttle measures the angle of elevation to the base of the vehicle to be 28° soon after liftoff (see figure). How high is the shuttle at that instant? Assume that the shuttle is still moving vertically.

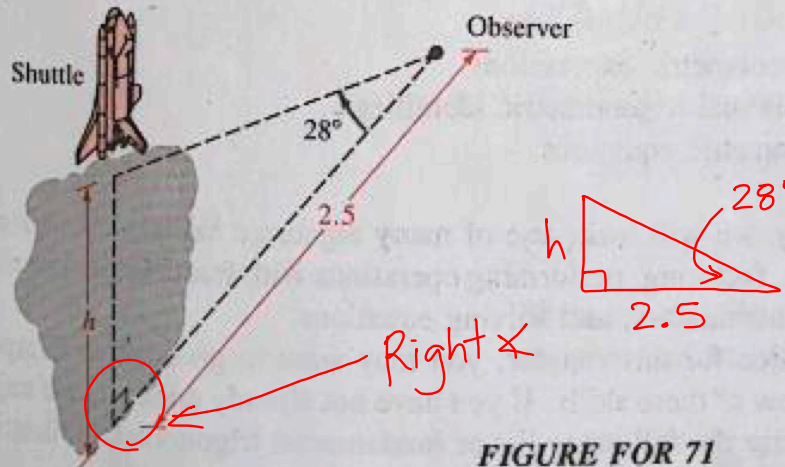
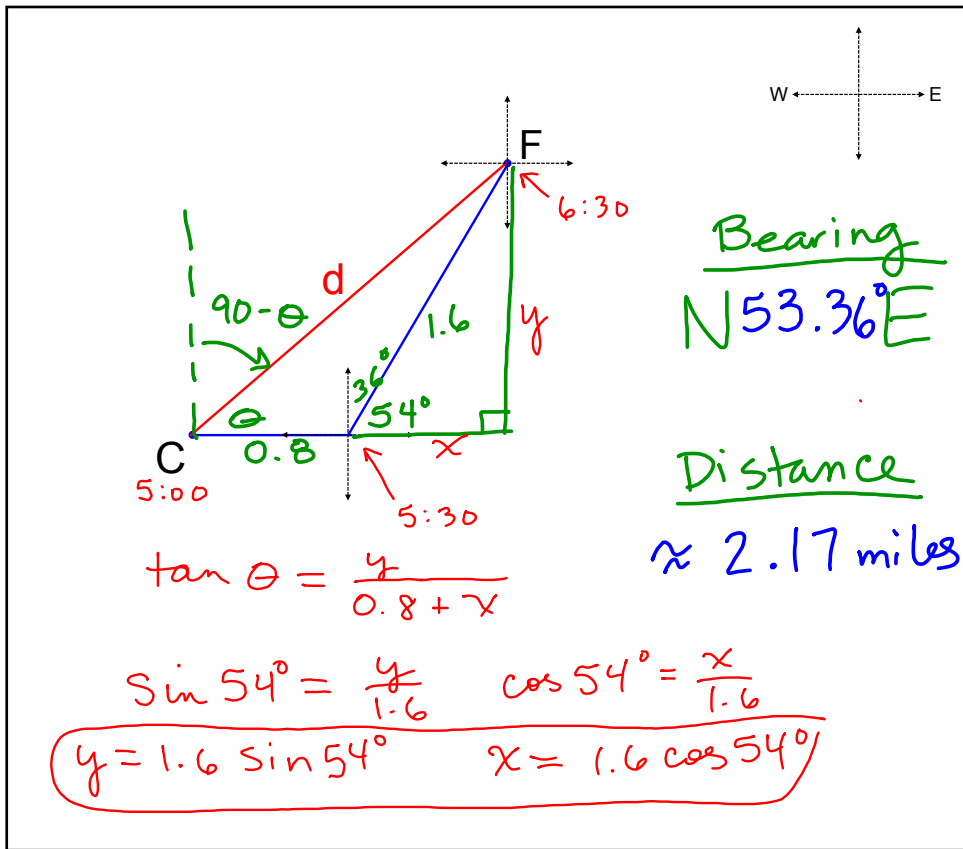


FIGURE FOR 71

group practice:

A hiker leaves camp at 5:00 heading due east at 1.6 mph looking for wood. At 5:30 he changes direction heading $N 36^\circ E$. An hour later he finds a deserted campsite full of precut firewood! He calls his friends at camp to come help him carry the wood back. What bearing should his friends take to reach him? How far is it from camp to the deserted site full of wood?



HW: Review WS

Group Event Monday (quiz)

Individual Test Tuesday

SL 9.1/9.7 and PC 5